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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,600	01/18/2002	Yoshitaka Fujita	P14979-A	4645

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EXAMINER	
RENNER, BRANDON M	

ART UNIT	PAPER NUMBER
2461	

MAIL DATE	DELIVERY MODE
05/11/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/050,600	FUJITA, YOSHITAKA	
	Examiner	Art Unit	
	BRANDON RENNER	2461	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 February 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-5,8-16,23-34 and 36-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *9,12,13,15,16,24,25,27,30-34 and 36-39* is/are allowed.

6)☒ Claim(s) *3-5,28 and 29* is/are rejected.

7)☒ Claim(s) *8,10,11,14,23 and 26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/22/2010 has been entered.

Claim Objections

Claims 8, 10, 11, 14, 23, and 26 are objected to because of the following informalities: The claims recite "POS", however there is no first recitation as to the definition of "POS". The Examiner suggests adding, prior to the first recitation of "POS" “Packet over SONET”.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gelman et al. "Gelman" US 6,493,348 in view of Ma et al. “Ma” US 7,616,646.

Regarding claim 3, Gelman discloses a demultiplexing method of receiving a multiplexed signal obtained by multiplexing a plurality of communication signals from a multiplexed signal transmitting section, demultiplexing the multiplexed signal into communication signals, and transmitting the demultiplexed communication signals to a communication signal receiving section, the method comprising:

adding, to each of the plurality of communication signals (packets traverse the network from a source to a destination hop by hop. The routers provide various routing functions and uses routing tables which have pre-assigned identification for where the packet is to be forwarded; Column 2 Lines8-25), an identification address preassigned to a predetermined signal identifying section through which a communication signal passes in a multiplexing system, including the multiplexed signal transmitting section and the communication signal receiving section, and outputting each of the communication signals, extracting the identification address from each of the output signals, and demultiplexing the multiplexed signal for each of the communication signals on the basis of the extracted identification address (signals enter the system at the IP backbone routers (24). MAC layer addresses are assigned and used as identification addresses for each signal which is later demultiplexed at the DSLAM / DSL access router to reach the appropriate destination, see Figures 1 and 3 and Column 2 Lines 8-25. Thus, the DSLAM effectively extracts the identification addresses from the packets

in order to properly demultiplex the packets and send them to the appropriate destination device.

Gelman does not explicitly disclose transferring signals which include a data packet to a first interface and when the communication signal include a control packet transferring the control packet to a PPP processor. However, Ma teaches that when packets which include PPP and control information are received, they are forwarded to an RSC (i.e. processor), and if there is no control information the packet is forwarded through the network (i.e. sent do a first interface); Column 11 Lines 3-20.

Thus it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teachings of Gelman to include transferring a data packet for further processing or sending it through the network based on control information within the packet or data in the packet as claimed.

One would be motivated to make the modification such that the packet can be processed and forwarded to the proper destination as taught by Ma; column 11 Lines 3-20.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson US 6,765,910 in view of Ma.

Regarding claim 5, Johnson discloses demultiplexing a multiplexed signal obtained by multiplexing a plurality of packets into packets, comprising:

extracting an IP address from each packet in the received multiplexed signal for each of the plurality of packets, the IP address being preassigned to a predetermined signal and demultiplexing the multiplexed signal into PPP packets on the basis of the extracted IP address (switch/router (30) provides a bridge for PPP streams to pass signals to the subscriber devices. The switch/router examines the contents of the PPP stream and selectively separates certain packets out of the stream when it detects the packets are intended for a server and forwards them only to the intended servers; Column 8 Lines 22-30. In other words, the PPP packet stream is analyzed based on the IP address which is extracted from the packet headers and the packets are forwarded based on this extracted information. The routing decisions are made based on IP addresses which are imbedded in the packet headers for the packets being communicated over the network; Column 8 Lines 31-40).

Johnson does not explicitly disclose transferring signals which include a data packet to a first interface and when the communication signal include a control packet transferring the control packet to a PPP processor. However, Ma teaches that when packets which include PPP and control information are received, they are forwarded to an RSC (i.e. processor), and if there is no control information the packet is forwarded through the network (i.e. sent do a first interface); Column 11 Lines 3-20.

Thus it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teachings of Johnson to include transferring a data packet for further processing or sending it through the network based on control information within the packet or data in the packet as claimed.

One would be motivated to make the modification such that the packet can be processed and forwarded to the proper destination as taught by Ma; column 11 Lines 3-20.

Claims 4 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelman in view of Johnson and further in view of Ma

Regarding claim 4, Gelman discloses the identification address includes a MAC address; Column 2 Lines 20-25. Gelman does not explicitly disclose the communication signal includes a PPP packet created for each IP subscriber. However, Johnson discloses packets arriving at the router from a server which are formatted into PPP format and inserted into PPP streams; Column 8 Lines 30-33.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Gelman to include PPP packet streams.

One would be motivated to make the modification such that a direct communication link could be setup between a source and destination device.

Regarding claim 28, Gelman discloses a demultiplexing method of receiving a multiplexed signal obtained by multiplexing a plurality of communication signals from a multiplexed signal transmitting section, demultiplexing the multiplexed signal into communication signals, and transmitting the demultiplexed communication signals to a communication signal receiving section, the method comprising:

adding, to each of the plurality of communication signals (packets traverse the network from a source to a destination hop by hop. The routers provide various routing functions and uses routing tables which have pre-assigned identification for where the packet is to be forwarded; Column 2 Lines8-25), an identification address preassigned to a predetermined signal identifying section through which a communication signal passes in a multiplexing system, including the multiplexed signal transmitting section and the communication signal receiving section, and outputting each of the communication signals, extracting the identification address from each of the output signals, and demultiplexing the multiplexed signal for each of the communication signals on the basis of the extracted identification address (signals enter the system at the IP backbone routers (24). MAC layer addresses are assigned and used as identification addresses for each signal which is later demultiplexed at the DSLAM / DSL access router to reach the appropriate destination, see Figures 1 and 3 and Column 2 Lines 8-25. Thus, the DSLAM effectively extracts the identification addresses from the packets in order to properly demultiplex the packets and sent them to the appropriate destination device.

Gelman does not explicitly disclose the communication signal includes a PPP packet created for each IP subscriber. However, Johnson discloses packets arriving at the router from a server which are formatted into PPP format and inserted into PPP streams; Column 8 Lines 30-33.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Gelman to include PPP packet streams.

One would be motivated to make the modification such that a direct communication link could be setup between a source and destination device.

Gelman and Johnson do not explicitly disclose transferring signals which include a data packet to a first interface and when the communication signal include a control packet transferring the control packet to a PPP processor. However, Ma teaches that when packets which include PPP and control information are received, they are forwarded to an RSC (i.e. processor), and if there is no control information the packet is forwarded through the network (i.e. sent do a first interface); Column 11 Lines 3-20.

Thus it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the teachings of Gelman to include transferring a data packet for further processing or sending it through the network based on control information within the packet or data in the packet as claimed.

One would be motivated to make the modification such that the packet can be processed and forwarded to the proper destination as taught by Ma; column 11 Lines 3-20.

Regarding claim 29, Gelman discloses converting the demultiplexed signal into a DSL signal and transmitting the signal to a subscriber (signals are demultiplexed by an XDSL access router and forwarded on to their respective destination terminals (i.e. subscriber apparatus); Column 6 Lines 26-46, see also Figures 3 and 4. Thus, the XDSL access router effectively converts the signals into proper format to provide DSL servers to the subscribers).

Allowable Subject Matter

Claims 9, 12, 13, 15, 16, 24, 25, 27, 30-34 and 36-39 are allowed.

Response to Arguments

Applicant's arguments with respect to claims 3-5 and 28-29 have been considered but are moot in view of the new ground(s) of rejection.

Note

The Examiner invites the Applicant to call the Examiner at the number listed below to schedule an interview to discuss amendments to claims 3, 5, and 28 to place the case in condition for allowance.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON RENNER whose telephone number is (571)270-3621. The examiner can normally be reached on Monday-Thursday 7-530.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. R./
Examiner, Art Unit 2461
5/6/2010

/Huy D Vu/

Supervisory Patent Examiner, Art Unit 2461